

***Evaluation Findings  
for the  
Apalachicola Bay National Estuarine Research Reserve  
January 1997 Through November 2000***

July 2001

Office of Ocean and Coastal Resource Management  
National Ocean Service  
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## Executive Summary

### A. OVERVIEW

Sections 312 and 315 of the Coastal Zone Management Act (CZMA) of 1972, as amended, require the National Oceanic and Atmospheric Administration (NOAA) Office of Ocean and Coastal Resource Management (OCRM) to conduct periodic evaluations of the performance of states and territories with federally-designated National Estuarine Research Reserve (NERR) Programs. This document sets forth the evaluation findings of the Deputy Director of OCRM with respect to the operation and management by the State of Florida of the Apalachicola NERR for the period from January 1997 through November 2000. It contains an executive summary of the review findings, a description of the review procedures, a description of the Reserve program, the Reserve's major accomplishments during the review period, evaluation findings and recommendations, a conclusion, and appendices.

It is the conclusion of this evaluation that the Apalachicola National Estuarine Research Reserve (ANERR) is meeting its program requirements satisfactorily under Section 315 of the CZMA and the program regulations at 15 CFR Part 921. The State is adhering to the ANERR's approved Management Plan and to the terms of federal financial assistance awards. Significant accomplishments and recommendations are summarized below.

### II. ACCOMPLISHMENTS

The State of Florida has demonstrated a continuing level of commitment to the ANERR. Significant accomplishments have been made in the nine areas listed below.

- 1. Administration and Management.** Leadership and staff in DEP's ANERR program have continued working toward completing the ANERR management plan revision, and have continued producing the high quality, timely annual reports and work plans.
- 2. Facilities.** The ANERR has continued to be involved in planning and executing facility enhancements including expansion of the Visitors Center to accommodate exhibit and meeting space, increased lab and storage space, and a boardwalk/interpretive trail near the facility. Enhancements at the Eastpoint facility, the boardwalk and dock, will allow efficient access to the bay for research and monitoring projects, and enhancements to the facilities for visiting researchers will attract talent and resources to the Reserve.
- 3. Education.** The ANERR continues to be very successful in introducing visitors and

residents to the importance of preserving the pristine estuarine environment in Apalachicola. Attendance at the Visitors Center, on staff-led field trips, and at the monthly lecture series all demonstrate an increased interest in these programs. Community events are well staffed by the ANERR, and these efforts are successful in educating the public on scientific work done at the Reserve.

4. **Listed Species.** During the review period, the efforts to protect endangered species have resulted in increased protection and surveillance of endangered sea turtles and nesting shorebird colonies. Successes have resulted from cooperation with local, state and federal agencies as well as with citizen's groups.
5. **State Role.** The ANERR has continued to coordinate with state agencies in areas of estuarine resource management. The commitment to responsible management of coastal lands, habitat protection and protection of estuarine water quality is very high at the ANERR.
6. **Research and Monitoring.** During the review period, the ANERR has continued to expand its research program to develop in-house management-oriented research and monitoring projects that address issues of local, state and national concern. The research program has expanded the facilities and increased technological capability by upgrading equipment and increasing staff resources. The research program has also coordinated with local, state, regional and federal agencies on local land development regulations and ordinances, dredge and fill projects, oil spill planning, Developments of Regional Impacts (DRI's), interstate water issues, coastal zone planning, threatened and endangered species protection and monitoring, and any other issues that impact the resources within and adjacent to the ANERR. Research staff also serve on a variety of committees covering a wide range of local, state, regional and national issues.
7. **National Role.** The ANERR staff has taken an active role in furthering the goals and objectives of the National Estuarine Research Reserve System (NERRS). They demonstrated a strong commitment to the NERRS as well as to the responsibilities of the ANERR. The ANERR staff have participated in planning efforts, meetings, and projects that benefit the entire system.
8. **Resource Management.** A significant achievement of the Reserve during the evaluation period is the addition of the resource management section to the Reserve staff. With state support, the new section has attracted and developed talent in the areas of land acquisition and upland management. The resource management section has strengthened the Reserve's coordination of the lands within the Reserve's boundaries, particularly with regard to prescribed burns and cultural resources.
9. **Community and Partner Involvement.** The ANERR is an integral part of the community. Local government and private organizations look to the Reserve as a scientific and educational leader in estuarine ecosystem issues affecting the lives and

future of Apalachicola citizens.

## C. SUMMARY OF RECOMMENDATIONS

In addition to highlighting the accomplishments noted above, this evaluation has identified areas where the program may be improved. These findings include two recommendations which take the form of a Necessary Action. These are mandatory and must be completed by an identified deadline. These findings also include four Program Suggestions that need to be considered prior to the next evaluation of the Reserve.

**Finding 1:** The ANERR management plan is not an easily enforceable document. This presents problems when ANERR management decisions concerning Reserve issues, made in accordance with the management plan, are challenged. To remedy this, DEP successfully sought specific rulemaking authority for DEP-managed uplands within the Reserve boundaries.

**Program Suggestion 1:** The Reserve should pursue making specific rules using rulemaking authority for uplands and other means to make provisions of its management plan enforceable. DEP should provide updates on the implementation of the rule-making authority and of other means to make the management plan enforceable to OCRM in its semi-annual progress reports.

**Finding 2:** Although required to meet quarterly, the Reserve Advisory Management Board (RAMB) has not convened since the approval of the 1998-2003 management plan revision. The RAMB is no longer performing the functions for which it was established. The Evaluation Team heard a range of opinions on the value of the RAMB, indicating that this is an issue that the Reserve needs to address promptly.

**Necessary Action 1:** The Reserve must address the issue of the RAMB, examining its existing and potential role, composition, and operation. This effort should be coordinated with current RAMB members and other key stakeholders. The results of this review should be incorporated into the 2004-2009 management plan revision.

**Finding 3:** The 1997 Evaluation Findings document contains a Program Suggestion that DEP routinely forward all permit applications to the ANERR for review on activities that may directly impact the ANERR.

**Program Suggestion 2:** The DEP should develop a formal process to: (1) notify the ANERR staff about permit activities that may impact the ANERR, and (2) receive ANERR staff input and develop recommendations.

**Finding 4:** The ANERR is nearing completion of its site profile. It has undergone review twice by OCRM's Estuarine Reserves Division (ERD), and requires completion of final chapters. The ANERR plans to prioritize workloads in order to complete the site profile.

**Necessary Action 2:** The ANERR should assign high priority to the site profile to ensure its completion by the June 30, 2002 deadline.

**Finding 5:** A finding in the 1997 Evaluation Findings document addressed the need to develop a stronger volunteer program, including the addition of a volunteer coordinator to the ANERR staff, when feasible. In response, the ANERR received financial support from the state for a short-term project to lay the foundation for a volunteer program. The current evaluation site visit re-confirmed the need for an active volunteer program with a dedicated staff person to ease current staff workload and expand opportunities for public participation.

**Program Suggestion 3:** The Reserve should continue to build its volunteer program for Reserve operations, education, research, monitoring and resource management. To accomplish this, it is strongly encouraged that the Reserve add a volunteer coordinator to its full-time staff.

**Finding 6:** With the expansion of the Visitors Center and the growing interest in environmental issues by the community, the existing education and support staff are overextended and may be unable to meet the needs of its users. A NERRS market analysis and needs assessment is needed to establish priorities for the ANERR education program. Priority-setting was a Program Suggestion in the 1997 Evaluation Findings and continues to be an issue, especially in light of the NERRS Coastal Training Initiative.

**Program Suggestion 4:** The ANERR should work to fill vacancies in the education program. It should undertake an internal program evaluation to assist in prioritizing its educational activities. The ANERR is also encouraged to strengthen the linkages between the education and the research, monitoring and resource management programs. These priorities and linkages should be articulated in the 2004-2009 management plan revision.

## I. INTRODUCTION

The National Estuarine Research Reserve System (NERRS) was established by the Coastal Zone Management Act (CZMA) of 1972, as amended. Sections 312 and 315 of the CZMA require NOAA's Office of Ocean and Coastal Resource Management (OCRM) to conduct a periodic review of the performance of states and territories with federally-designated National Estuarine Research Reserves. This document sets forth the evaluation findings of the Director of OCRM, National Ocean Service (NOS), NOAA, with respect to the performance of the State of Florida in the operation and management of the Apalachicola National Estuarine Research Reserve (ANERR) for the period of January 1997 through November 2000. This document contains an executive summary, review procedures, program description, accomplishments, review findings and recommendations, a conclusion, and appendices.

The recommendations made by this evaluation appear in bold type and follow the section of the findings in which facts relevant to the recommendation are discussed. The recommendations may be of two types:

**Necessary Actions** address programmatic requirements of the CZMA implementing regulations and of the ANERR management plan approved by NOAA, and must be carried out by the date(s) specified.

**Program Suggestions** denote actions that OCRM believes would improve the management and operation of the Program, but which are not mandatory at this time. If no dates are indicated, the State is expected to have considered these Program Suggestions by the time of the next CZMA Section 312 evaluation.

Program suggestions that must be reiterated in consecutive evaluations to address continuing problems may be elevated to Necessary Actions. The findings in this report will be considered by NOAA in making future financial assistance award decisions to the ANERR.



## **II. Program Review Procedures**

### **A. OVERVIEW**

The OCRM evaluation staff began its review of the ANERR in October 2000. This included an analysis of the approved ANERR, previous and current award documents and performance reports, previous evaluation findings, correspondence relating to the ANERR, and other relevant information. The OCRM Director's Office and Estuarine Reserves Division (ERD) staff collaborated to determine issues which would become the main focus of the evaluation. The Evaluation Team analyzed the State's responses to these specific issues and used them as primary sources of information on the ANERR's operation.

### **B. DOCUMENT REVIEW AND ISSUE DEVELOPMENT**

Based on the document review, and, in conjunction with discussions with ERD staff and the ANERR Manager, the evaluation team identified as priority issues the following:

- Major accomplishments during the review period
- Status of general administration of the Reserve
- Status of the Reserve boundary expansion
- Status of Reserve facilities and future facilities plans
- Status and direction of the Reserve Advisory Management Board and Research and Education Advisory Committees
- ANERR role and integration with the Florida Coastal Management Program
- State response to the previous evaluation findings, dated August 12, 1997

### **C. SITE VISIT TO FLORIDA**

Notification of the scheduled evaluation was sent to: the Department of Environmental Protection (DEP) as the lead agency, relevant federal agencies, and to regional newspapers. In addition, a notice of NOAA's "Intent to Evaluate" was published in the Federal Register on October 26, 2000.

A site visit to Florida was conducted from December 4 through 9, 2000. The OCRM Evaluation Site Visit Team consisted of Susan Melnyk, Evaluation Team Leader, OCRM's

Director's Office, Nathalie Peter, Senior Project Manager, ERD, and Carol Towle, Reserve Manager, Chesapeake Bay, MD NERR.

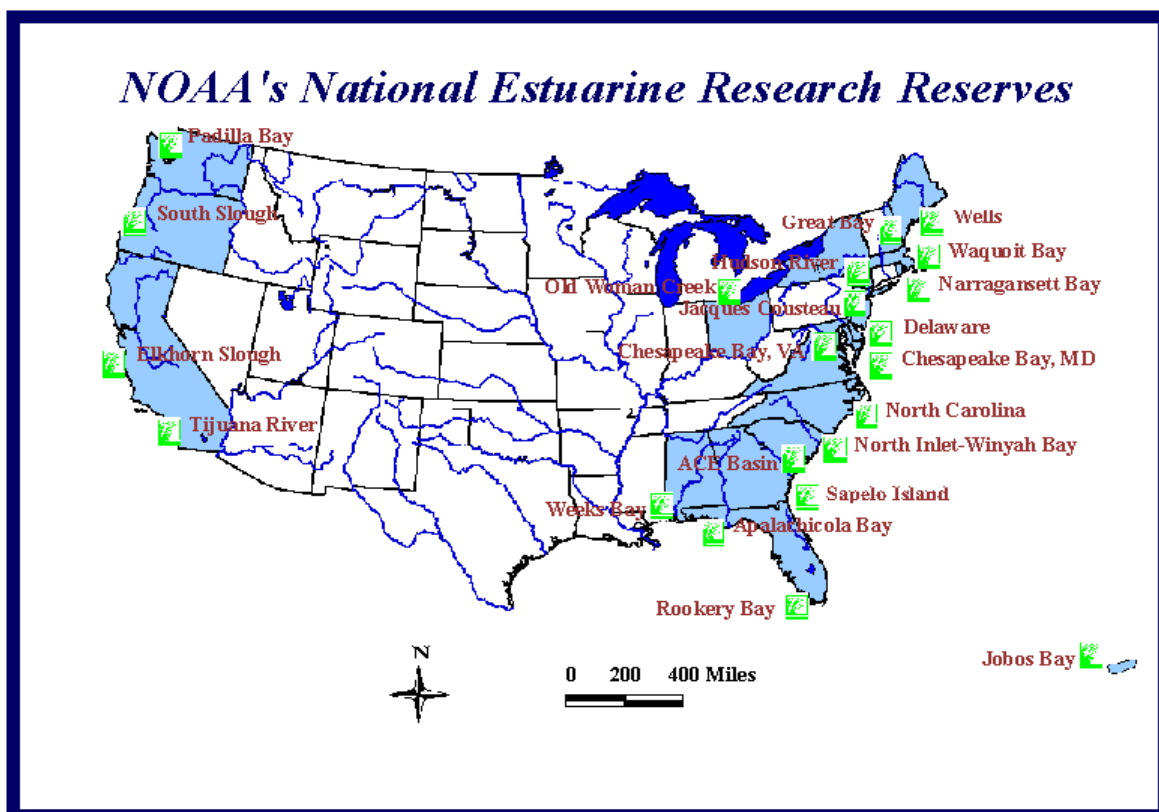
The evaluation team interviewed the Reserve Manager and staff, other senior staff within the DEP, as well as other government officials, researchers, educators, and representatives from non governmental organizations. Appendix A contains a listing of individuals contacted during this review.

As required by the CZMA, an advertised public meeting was held by NOAA on Wednesday, December 6, 2000 at 7:00 p.m. in the Education Center of the Apalachicola National Estuarine Research Reserve, 261 7<sup>th</sup> Street, Apalachicola, Florida. Members of the general public were given the opportunity to comment on the operation and management of the Apalachicola NERR. A list of public meeting attendees can be found in Appendix B.

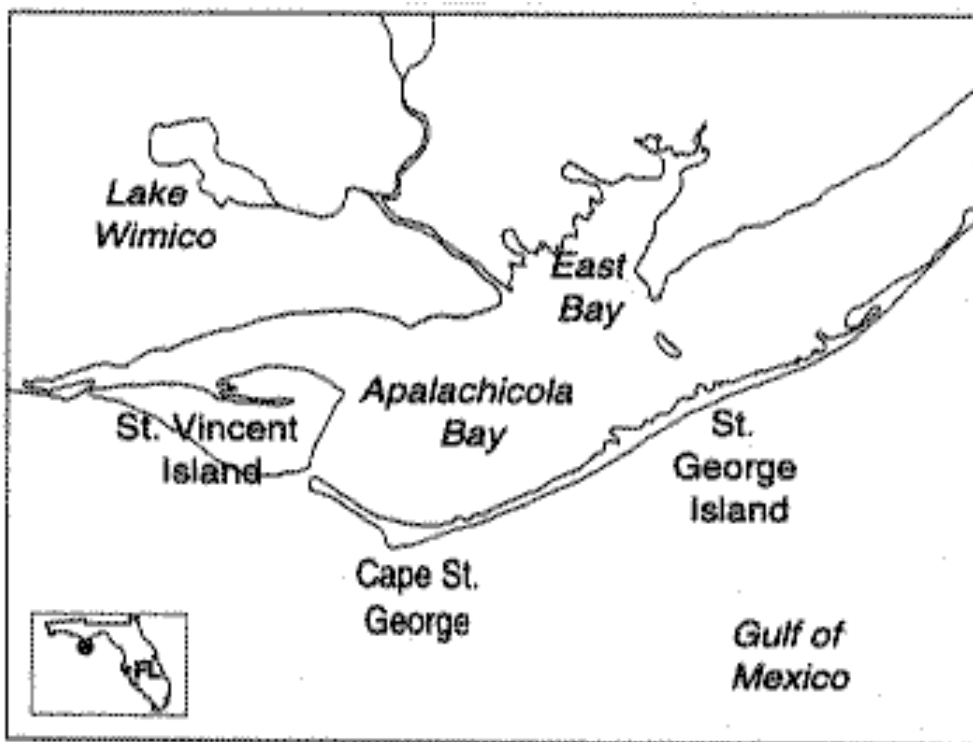
### III. Reserve Program Description

## A. THE NATIONAL ESTUARINE RESEARCH RESERVE SYSTEM

The National Estuarine Research Reserve System (NERRS) is a protected areas network of federal, state, and community partnerships that serves to promote informed management of the nation's estuarine and coastal habitats through linked programs of scientific understanding, education, and stewardship. To date, NOAA has designated 25 NERRS totaling over 1,000,000 acres of protected estuarine lands and waters which represent 17 of 29 biogeographic subregions identified by the NERRS program.



## B. Apalachicola NERR



### 1. Background and Description of the Reserve

The Apalachicola estuarine ecosystem is one of the most productive in North America, producing 90% of Florida's and over 10% of the nation's oyster harvest. The bay also supports a fin-fish and blue crab industry. The economic importance of this estuary continues as it opens into the Gulf of Mexico, from which 42% of all U.S. seafood is harvested. Other commercial activities in the Reserve include fishing, hunting and bee-keeping.

The Reserve encompasses approximately 246,000 acres of land and water, most of which are state-owned sovereign submerged lands. This includes the bay, its tidal creeks, marshes and bayous, the lower 52 miles of the Apalachicola River and its associated floodplain, upland areas, portions of two offshore barrier islands, and a portion of a third barrier island. The Apalachicola NERR is located in Franklin and Gulf Counties, on the northwest coast of Florida, in one of the least populated coastal areas in the state. The public lands included in the Reserve are the St. Vincent Island National Wildlife Refuge, St. George Island State Park, Apalachicola River Wildlife and Environment Area, Apalachicola River Water Management Area, and Cape St. George Island. The Reserve's offices are located within the city of Apalachicola at the Scipio Creek Marina on Seventh Street, and off North Bayshore Drive in Eastpoint. Highway 98 provides the only access to Apalachicola and Eastpoint, either eastward from Panama City or westward from Crawfordville.

The Apalachicola River basin is part of a larger Apalachicola-Chattahoochee-Flint (ACF) River system, covering the north-central and southwestern part of Georgia, the southeastern part of Alabama, and the central part of the Florida Panhandle. The Apalachicola estuary is influenced by upstream rainfall because the majority of the tri-river basin is in Georgia and Alabama. The estuary is under an increasing threat of reduction of freshwater discharge from upstream in the tri-river basin due to competing fresh water uses and increasing development pressures upstream. The ANERR is part of the Louisiana biogeographic province, and is characterized by low elevations and poor drainage. A majority of the soils tested in Franklin County were determined to be poorly suited or unsuitable for development and septic tank use.

## **2. Reserve Administration**

Reserve administration is accomplished by coordinating the activities of all cooperative entities in the area. These include 17 local, state and federal government agencies. These are: the National Oceanic and Atmospheric Administration; Florida Department of Environmental Protection; U.S. Army Corps of Engineers; U.S. Environmental Protection Agency; U.S. Fish and Wildlife Service; Florida Department of Community Affairs; Florida Marine Fisheries Commission; Northwest Florida Water Management District; Florida Department of Health; Florida Fish and Wildlife Conservation Commission; Florida Division of Forestry; Apalachee Regional Planning Council; Florida Division of Historical Resources; Franklin County; City of Apalachicola, and City of Carabelle.

The Florida Department of Environmental Protection (DEP) is the lead management agency, with the U.S. Fish and Wildlife Service, the Florida Fish and Wildlife Conservation Commission and the Northwest Florida Water Management District (NFWFMD) also having lead roles within the Reserve. The Florida Division of Forestry has support management authority over state-owned lands within the Reserve. Coordination and communication with land managers within Reserve boundaries are accomplished at the staff level through the reserve manager. The Reserve management plan provides an overview of the Reserve and its programs and management issues, outlines DEP policy, and lays out a five year action plan. Input was received from the Reserve Advisory Management Board (RAMB) on the last revision of the management plan. The management plan was approved by NOAA's ERD in 1995.

## IV. Accomplishments

**A. Administration and Management.** The ANERR revised its management plan and had it approved by the State of Florida and NOAA during the review period. This revision took into account the boundary expansion noted during the last evaluation period. The entire boundary expansion increased the total land and water area of the Reserve to 246,904 acres. The State of Florida also updated its NERR MOU with NOAA in December 1998. Required documentation was submitted to NOAA, and MOUs with participating land managers are in place. The Reserve continues to submit timely and thorough reports to NOAA with documentation and news articles highlighting Reserve activities throughout the reporting period.

**B. Facilities.** The ANERR applied for and received construction funds from NOAA. With these funds, the Reserve has expanded its education and research facilities which helps to carry out its work in the region and with cooperative agencies. At the site of the Howell Building in Apalachicola, these funds provided for the expansion of the Visitors Center and development of a boardwalk/interpretive trail near the Visitors Center. Structural repairs were completed and with the expansion of the building, the Visitors Center now has an atrium, an auditorium, increased exhibit space, and increased lab and storage space. The new open air design provides a light filled space for educational materials and viewing areas to watch the wildlife that inhabit the land around the building and marsh.

The new auditorium accommodates up to 100 people for meetings, training, educational workshops and special events. For example, the U.S. Army Corps of Engineers Wetlands Training Program provides four training courses each year which accommodate 25-30 participants. These courses are held at the Reserve headquarters, and are popular because of the Reserve facilities and its location.

The new boardwalk/interpretive trail was built with minimal disturbance to the marsh vegetation by specially designed equipment to bring materials in. The boardwalk provides an opportunity for visitors to view reserve lands and learn about the biodiversity and habitat of the Apalachicola estuarine environment. The boardwalk is 600 feet long and six feet wide with two two-way passing areas. It covers forested wetlands, uplands, ponds, and hammocks, and ends at an observation deck that overlooks an extensive marsh and tidal creek system. The dedication ceremonies featured the former mayor, General Robert L. Howell, for whom the building was dedicated, the current mayor, and the DEP deputy secretary of the Department of Land and Recreation.

The ANERR Eastpoint Administration Building was completed during the review period. Additional upgrades at the Eastpoint facility include a new land-based docking structure. The docking platform is equipped with electric boat hoists to allow staff ready access to the bay

for research and monitoring as well as tours and guided field trips. A three-bedroom furnished dorm facility, adjacent to the research facility, is now available for visiting researchers and interns. The Reserve also completed a covered vehicle structure and storage shed.

Comments were heard throughout the evaluation site visit on the value of the Reserve facilities to visitors, and to the community, as an educational resource and center of estuarine research. Users include the Franklin County School System, the Apalachicola Chamber of Commerce, the tourism industry, non governmental organizations, and state and federal agencies.

**C. Education.** The education program has grown into its new space at the Howell Building. The number of visitors increased even when the building was closed for construction. This statistic is due to an increase in walk-in visits. During the 1999-2000 state fiscal year, the number of visitors was up from 2,000 to 13,400. The education staff also maintains and sets up exhibits featuring the Florida Black Bear, snakes, whale bones, shells and Indian artifacts, including information from the resource and land stewardship sections of the Reserve. Education staff also designed an interpretive sign at the head of the Nature Trail. In addition, the education staff maintains the aquarium facility (Estuarine Walk); holds presentations with the audiovisual equipment in the auditorium; conducts field trips with over 2,500 people; conducts coastal decision-maker workshops, some of which are in cooperation with the Florida Coastal Management Program (FCMP); maintains an audio-visual library; maintains an educational program providing collected educational materials called "Treasure Chests"; produces a quarterly newsletter, the "Oystercatcher", and hosts the guest lecture series which had 172 participants during the last year.

Estuarine Walk - the Reserve's aquarium facility - is an educational exhibit featuring simulations of three major habitats of the Apalachicola Reserve. It benefitted from renovations during the evaluation period. The three large holding tanks display inhabitants from different water areas - the Apalachicola Bay, the Apalachicola River, and the Gulf of Mexico. Plaques present pictures, the common and scientific names identifying the inhabitants, and a particular "Feature Creature" in each tank. In addition to the holding tanks, there are several aquaria which contain different types of fish, turtles and crustaceans.

The ANERR completed a new site brochure and several other publications highlighting the value of resource protection in Apalachicola. These include a quarterly newsletter, the publications, "A Boating and Angling Guide to Apalachicola", "Birds of the Apalachicola", and "Shells of the Apalachicola", all available at the Visitors Center.

**D. Listed Species.** The Reserve plays a major role in the protection of the thousands of species inhabiting its beaches, oyster bars, marshes, forested floodplains and sandhills. Some species are endangered, threatened, or rarely seen anywhere else. The Reserve and the surrounding area are among the most important bird habitats in the Southeastern United States. This area lies to the east of the Mississippi flyway, thus receiving birds from both the Midwest

and Atlantic Seaboard during migratory periods. In collaboration with the Florida Fish and Wildlife Conservation Commission, the ANERR worked to monitor shorebird nesting activity. Of particular concern is the nesting of four species on the St. George Island Causeway during tourist season. According to a nesting census taken before the nesting season, the species of particular concern include Laughing Gulls, Least Terns, Royal Terns, and Sandwich Terns. Caspian Tern nests, Black Skimmer nests, and Gull-billed Tern nests were sighted as well. Warning signs were posted along the Causeway, and the Department of Transportation contributed by lowering the speed limit on the road through the nesting area and constructing a fence to reduce vehicular mortality. During the 2000 season, a Florida Park Patrol official assisted the Reserve with enforcing the speed limit through the area. A dredge spoil island was created for a new nesting area to divert species from the causeway during nesting seasons.

ANERR staff locate and monitor sea turtles for nesting success. After Hurricane Earl in 1998, the number of sea turtle nests was dangerously reduced on St. George Island due to the destruction of their nesting beaches. Subsequent to the hurricane, monitoring revealed high numbers of disoriented hatchlings directly related to the artificial lighting along the Island's populated beaches. Disoriented hatchlings were seen wandering away from the Gulf, onto the road, or up the dunes to die of dehydration, to be destroyed by predators or to be hit by passing vehicles. ANERR staff were contacted and called upon to monitor and redirect the hatchlings to their natural course to the water. Deck lights and business signs where residential housing and businesses are densely located were found to be the cause of the disorientation, and targeted in a project in which ANERR staff assisted Franklin County in preparing and passing a lighting ordinance for marine turtle protection. The Reserve made extensive efforts during this period to educate residents on the negative effects of beach front lighting on hatchling sea turtles. Nests on St. George Island, Cape St. George Island, and Carrabelle Beach are currently being monitored. Staff assistance was given to the Apalachicola Bay and River Keepers to obtain and implement a grant from the U.S. Fish and Wildlife Service to replace and retrofit problem lighting on St. George Island.

The ANERR was involved with the U.S. Fish and Wildlife Service Red Wolf reintroduction program on St. Vincent Island, one of the ANERR barrier islands. A pair of wolves were sterilized and released on the island in an effort to determine the Island's viability as a future reintroduction site. The St. Vincent National Wildlife Refuge serves as one of the breeding sites for the program as well as a sanctuary for several endangered and threatened species. Monitoring the wolves revealed significant depredation of sea turtle nests. As a result, the wolves were removed.

**E. State Role.** The ANERR plays a leadership role with state agencies on issues affecting ANERR lands and estuarine resources. Projects include coordination of meetings, scientific and technical support on local, regional and state issues, developing the new resource management section, and land acquisition.

◆ The Reserve resource management coordinator serves as the Office of Coastal and



Aquatic Managed Areas state-wide burn coordinator. Assistance is given to state buffer preserves and the Rookery Bay NERR as well.

- ◆ The Reserve research coordinator helped organize and participated in meetings educating congressional staff members from Florida, Georgia, and Alabama on the Apalachicola-Chattahoochee-Flint River (ACF) water allocation issue. The meetings were sponsored by Kennesaw State College in Georgia, and provided a forum for staffers from the ACF watershed to discuss the current water allocation issue.
- ◆ The ANERR research coordinator serves on the technical committee to provide comments to the Florida Forever Advisory Council on goals, objectives, and guidelines for the Florida Forever Program. Pursuant to the Florida Forever Act, this Program will provide over \$3 billion over the next ten years to purchase and manage lands and wetlands in the state.
- ◆ ANERR staff provided considerable guidance and information to Florida's new Guana Tolomato Mantanzas NERR during its designation and start-up phases.
- ◆ ANERR staff assisted Florida Greenways and Trails with Pass the Paddle 2000, a public awareness tour to emphasize the ecological importance of American rivers. Educational displays were assembled and staff assisted in the passing of the symbolic paddle to the mayor of Apalachicola to add his signature to those of dignitaries from other participating states.
- ◆ The education staff organized exhibits for the annual Florida Seafood Festival that attracted approximately 20,000 visitors to Apalachicola. Staff efforts went to support the Franklin County annual coastal cleanup as well. Other annual events included the Carrabelle Waterfront Festival, Archaeology Day, Family Fun Day and in October 2000, an open house at the new Visitors Center for National Estuaries Day. Staff also hosted a week long training program at the Reserve for teachers on turtles of the Florida Panhandle.

**F. Research and Monitoring.** The research and monitoring program at the ANERR continued to generate research findings and to monitor data sets that are useful for resource protection in the Apalachicola estuarine and river system. The program houses an extensive computerized reference library of science undertaken in the Reserve. An updated bibliography was provided to resource managers, scientists, and educators, containing a listing of books, papers, reports, theses and maps.

The Reserve participated in the Graduate Research Fellowship (GRF) program by providing hands-on opportunities for students to address research questions and estuarine management issues of local, regional, and national significance. A University of South Florida Ph.D. student is working on a two-year project titled "A Hydrogeological Framework for

Modeling Nutrient-Bearing Groundwater Flow and Submarine Groundwater Discharge, St. George Island, Florida.” A second student from Florida State University is beginning a project titled “A Spatial and Temporal Assessment of Factors Affecting Denitrification in Apalachicola Bay.” This project will last three years. ANERR staff assisted both technically and logistically with these projects.

Reserve staff played a crucial role in monitoring water quality in the Apalachicola River and Bay drainage basin. The Reserve provided continuous monitoring of climatological conditions at a weather station and water quality parameters at two sites in Apalachicola Bay as part of the System-Wide Monitoring Program (SWMP) program. Three years of data have been submitted to the NOAA Central Data Management Office (CDMO). The Reserve has also installed two additional dataloggers to monitor water quality. Parameters include salinity, dissolved oxygen, temperature, and surface and bottom water conditions. This data has been beneficial in many local development projects, including the placement of the new St. George Island bridge.

An area in the Reserve developing at a rapid pace is the barrier island, St. George Island. The ANERR conducted a study to measure the impacts of contaminants from septic systems on Apalachicola Bay in its oyster harvesting area. The results of this study will establish the pathways and magnitudes of groundwater flow, associated nutrients, and bacteria discharge into Apalachicola Bay. Data are used for monitoring purposes as well as for coastal decision-making. Monitoring the effects of high density area septic systems is necessary to prevent the possible deterioration of the bay and its valuable economic and natural resources.

Shoreline erosion studies were conducted on the barrier islands in order to document the recovery of sand dunes after Hurricane Opal in 1995. Nine stations on Little St. George Island - five gulf-side and four bayside - were established by DEP’s Bureau of Beaches and Coastal Systems and were monitored quarterly. The ANERR used these data as a GPS overlay to illustrate mean high level water marks. Additional data layers being incorporated into GIS included sediment erosion tables. Staff assisted with the monitoring of sediment erosion tables which were designed to measure erosion and accretion of the marsh and then installed in the marshes of the St. Mark’s River, a tributary of the Apalachicola River.

The research staff is viewed by the community as a valuable source of technical and scientific expertise and logistical support for scientific research. For example, one of its partners in the community, the Northwest Florida Water Management District (NFWFMD), has worked with the ANERR on a trawling program to determine changes in the biota of the bay over the last 20 years. Using the same data collection methods and equipment from data collection surveys conducted in the 1970’s and 80’s, this long-term monitoring project provides data to detect changes in the bay due to fresh water allocation changes upstream. This program monitors the diversity and abundance of marine fish and invertebrate species in Apalachicola Bay, and measures changes in freshwater inflows. Samples were collected from 12 trawling stations, at intervals of 5 trawls a month. Monthly surface and bottom samples were taken by staff, as well as upriver samples and ancillary physical-chemical data.

**G. National Role.** The ANERR staff has taken an active role in furthering the goals and objectives of the National System. The ANERR staff have participated in system-wide planning efforts, meetings, and projects that benefit the entire NERRS, demonstrating a strong commitment to the NERRS as well as to the responsibilities of the ANERR.

The research coordinator continues to serve on the NOAA Central Data Management Office (CDMO) Committee that provides oversight and coordination among NOAA, the NERRS and the CDMO. As chairman of the SWMP Phase I Oversight Committee, the research coordinator has provided technical expertise to the NERRS sites on datalogger protocol, deployment, standard operating procedures, quality assurance and quality control. The research coordinator is also committed to represent the NERRS research coordinators on a NOAA committee tasked to rewrite the NERRS regulations.

In a cooperative project with NOAA's Coastal Service Center (CSC), the Virginia Institute of Marine Science (VIMS), and Barry Vittor and Associates, the Reserve completed a project to map the benthic habitats in the Reserve. Areas of Apalachicola Bay, East Bay, St. Vincent Sound, and St. George Sound were sampled for bathymetry, infauna, sediment characteristics and acoustic analysis of habitats. Data were imported into a GIS format. Future meetings with CSC will take place to determine how to integrate the information gathered and also to determine future sampling needs.

The research coordinator served on a national committee to provide input and guidance on the draft document, "The NERRS SWMP: a Scientific Framework and Plan for Detection of Short-term Variability and Long-term Change in Estuaries and Coastal Habitats of the United States." This document, written by Betty Wenner, manager of ACE Basin NERR, describes the SWMP buildout process.

With NOAA Environmental Services Data and Information Management (ESDIM) and Protected Areas GIS (PAGIS) grants, the ANERR established a GIS system that incorporates historical environmental data about the Reserve from several sources. Ultimately, the ANERR will be able to provide this data to other coastal managers and to the scientific community. The three-year project titled, "Rescue of Historical and Recent U.S. Coastal Data and Metadata to Support the U.S. Coastal Monitoring Network Index Sites" included three other NERRS; Padilla Bay, Narragansett Bay and Jobos Bay. A standardized format was developed for the computerized system. The project contained over 175 coverages on the Apalachicola River and surrounding watershed. This technology increased the efficiency of existing data, helped the Reserve in monitoring environmental conditions, and is an aid in resource management. The research coordinator made national presentations on this project at the NERRS Annual Meeting in Williamsburg, Virginia, the OCRM Annual Program Managers Meeting in Washington, D.C., the Geotools '01 Conference sponsored by the CSC in Charleston, South Carolina, and the NOAA Geospatial Data Workshop in Silver Spring, Maryland.

**H. Resource Management.** Another significant achievement of the Reserve during the review period was the creation of the resource management section. Since the addition of a state-supported resource management coordinator, this section has focused its efforts on land acquisition and management of the lands within the Reserve boundaries. To accomplish this management goal, it has increased coordination with local, state and federal partners, non governmental organizations, land owners and adjacent land managers.

The ANERR also initiated an upland restoration effort through its prescribed burning program. Burning is beneficial to habitat in increasing diversity of plant species, decreasing hazards, and producing nutrients for fast growing plant species. The ANERR provided technical assistance to state-wide burn programs including local land management agencies.

Lands within the Reserve boundary are believed to have been settled from the Paleo-Indian through Mississippian periods. Excavations have indicated large pre-historic populations of small hunting groups, farmers, or aquatic species-based hunter-gatherers dating back 10,000 years. The ANERR resource management section has been engaged in cultural resource management. Staff have completed archaeological site monitoring and artifact management classes as part of their professional development. Drawing upon their local knowledge of known and potential pre-Columbian sites on ANERR managed lands and the entire Apalachicola area, they have provided extensive field support for professional site investigation projects. Additionally, the staff provided boat and vehicular transportation to remote sites and mapping packages for these projects.

Other cultural resource management activities included hosting and facilitating an Archaeology Field School with the University of South Florida Anthropology Department, and an investigation of a confederate gun battery on the Apalachicola River and pre-Columbian sites within the Apalachicola River drainage area. The ANERR was awarded the *Stewards of Heritage Preservation Award 2000* by the Florida Archaeological Council for their 14 years of assistance to professional archaeologists in Northwest Florida. The Reserve was nominated by Dr. Nancy White of the University of South Florida in recognition of its support to University archaeologists, the Florida Conservation and Recreation Lands (CARL) Program, and the Florida Division of Historical Resources.

**I. Community and Partner Involvement.** The ANERR has become an integral part of the Apalachicola community. Local government and private organizations consider the Reserve to be a leader in science, education, and estuarine ecosystem issues affecting the future of the community. Reserve staff are involved in the community on a daily basis, assisting with local issues, providing technical assistance, data, mapping, facilities and educational programs, and monitoring information.

With the expansion of the Visitors Center and construction of the boardwalk/interpretive trail, the public use of Reserve facilities has increased. There are more programs conducted to

increase public involvement in and awareness of estuarine environment issues. The Reserve's new 100- seat auditorium provides meeting space for the Friends of the Reserve, community, education and school groups, as well as local, state, and federal partners. The new boardwalk allows access to the marsh for visitors and will soon feature a self-guided tour of the habitat and species.

Reserve staff are also involved in community issues affecting lands and waters included within the Reserve. Following are several examples:

- Staff consulted with contractors for the new St. George Island Bridge, providing input on permit issues and staff for monitoring and mitigation, artificial reef creation, and protection of bird nesting areas. Research staff negotiated an exchange of an equipment upgrade for providing monitoring of turbidity at one of the ANERR monitoring sites which was a requirement for the bridge construction project.
- The resource management section coordinated with the NWFMD, the FWS, and The Nature Conservancy on several land acquisition projects to protect valuable resources and buffer areas for the ANERR.
- The ANERR has developed a cooperative relationship with the FCMP. Coastal Decision Maker Workshops were conducted based on FCMP suggested topics, and the FCMP provided financial assistance for a temporary volunteer coordinator at the Reserve.
- The research coordinator served on the Florida Technical Advisory Committee for the ACF River Basin Compact addressing water allocation issues among Florida, Georgia and Alabama. The research coordinator assisted the DEP and the NWFMD in understanding the freshwater input needs of Apalachicola Bay. The ANERR also provided assistance to NOAA regarding ACF allocation issues.

Finally, the Reserve staff participated in a variety of community events. Staff set up and run exhibits at the annual Apalachicola Seafood Festival, and the Carrabelle Waterfront Festival; set up an exhibit and touch-tank for the first annual Family Fun Day in Apalachicola; hosted two field days as part of an international conference for the Association of Biology Lab Educators, and they coordinated the annual International Coastal Cleanup for most of Franklin County.

The Reserve is not only highly regarded in the community as a premier site for education and resource management, but it also serves as a hub for a host of programs in the Apalachicola area. The Reserve possesses significant resources, facilities, and expertise otherwise unavailable to these programs. Several people interviewed (e.g. representatives of the school system, the U.S. Army Corps of Engineers, the University of South Florida Archaeology Field School, staff of Senator Bob Graham, the Apalachicola Chamber of Commerce, land managers and the NWFMD) remarked that the Reserve has never turned down a request for assistance. In one way or another, the Reserve contributed significantly to the ultimate success of many community programs.



## **V. Review Findings and Recommendations**

This review finds that the DEP is operating and managing the ANERR in a satisfactory manner and adhering to the programmatic terms of the NOAA financial assistance awards. The Reserve has made a number of significant improvements during this review period that enabled the program to address its research, education and management goals. However, given the current workload and size of the program, the review team identified needs for staff resources and overall needs assessment in order to ensure continuing responsibilities and to respond to current local and national issues.

### **A. Enforceability of the ANERR Management Plan**

As the NERRS regulations (15 C.F.R. 921.33(c)) and standard operating procedures detail, all research reserves must update their management plans at least every five years. Management plans are used to guide Reserve operations and management, and provide the basic framework for all Reserve activities, including education, outreach, research and monitoring. The DEP requires each of its programs to submit a management plan for the lands and water it manages.

Despite the fact that the management plan approval process in the State of Florida requires Governor and Cabinet level approval, certain parts of the Reserve management plan are not easily enforceable. This poses a potential problem in cases where Reserve staff attempt to protect resources within Reserve boundaries, in accordance with the management plan. For example, management decisions by the Reserve may be challenged and overturned.

Specific rulemaking authority enables the ANERR to develop rules and policies to support the management objectives in the ANERR Management Plan. DEP possesses such rulemaking authority for certain buffer preserves in the state. DEP also submitted a request for rulemaking authority for DEP-managed uplands during the 2000 legislative session; however, there was no action. DEP made the request again during the 2001 session, and was successful in passing legislation granting specific rulemaking authority to the Office of Coastal and Aquatic Managed Areas, of which the Reserve is a sub-unit, for management of uplands.

The Florida Statutes were expanded to include section 253.86 which states,

“Management and use of state-owned or other uplands; rulemaking authority. –  
(1) The Office of Coastal and Aquatic Managed Areas of the Department of Environmental Protection shall have the authority to promulgate rules to govern the management and use of state-owned or other uplands assigned to it for management. Such rules may include, but shall not be limited to, establishing prohibited activities or restrictions on activities consistent with the purposes for which the lands were acquired, designated, or dedicated, and charging fees for use

of lands. All fees collected shall be used for the management of uplands managed by the office.

(2) Any person violating or otherwise failing to comply with the rules adopted under this section commits a noncriminal violation as defined in s. 775.08 (3), punishable by fine, not to exceed \$500 per violation. “

The DEP is commended for its efforts to pursue specific rulemaking authority for uplands which establishes a means to make provisions of the ANERR management plan enforceable. DEP should consider incorporating by reference the ANERR management plan into future rulemaking efforts.

**Program Suggestion 1:** The Reserve should pursue making specific rules using rulemaking authority for uplands and other means to make provisions of its management plan enforceable. DEP should provide updates on the implementation of the rule-making authority and of other means to make the management plan enforceable to OCRM in its semi-annual progress reports.

#### **B. Reserve Advisory Management Board (RAMB)**

The purpose and membership of the RAMB are described in the 1998-2003 revision of the ANERR management plan, page 180:

“The role of the Reserve Advisory Management Board (RAMB) is to assist the Department by providing recommendations on matters concerning the education, research, resource utilization (commercial or recreational), resource management and program coordination. The RAMB charter is found in Appendix 9 of the management plan.

The ten seats on the RAMB are comprised of five voting members appointed by the Franklin County Board of County Commission and five state and federal representatives. County representatives represent the following groups: the commercial seafood industry, Franklin County School System (two seats), the Franklin County Commission, and recreational fishing. Five members representing state, federal and local government have voting privileges and are represented by the following groups: the University of Florida Sea Grant Extension Program, the Florida Game and Fresh Water Fish Commission, the Northwest Florida Water Management District; a research scientist, and the U.S. Fish and Wildlife Service.”

Although required to meet quarterly, the RAMB has not met since the approval of the 1998-2003 management plan revision. During the evaluation site visit, numerous discussions took place about the current utility of the RAMB including its role, membership and operation. The team heard that the RAMB has outlived its usefulness as a management group. The reserve manager and several board members concurred and indicated that the functions have been replaced by informal one-on-one communications. Logistical complexities involved in



convening a quorum for a RAMB meeting, including the distance to Apalachicola from Tallahassee, Panama City and Pensacola, have also hampered the RAMB.

However, there were other board members and stakeholders who felt that the visibility and role of the Reserve in the community as well as the direction that the ANERR takes would be enhanced by a functioning RAMB. The RAMB can provide a broader perspective for managing the watershed and can assist the Reserve in dealing with sensitive land and water use issues.

The last evaluation included a program suggestion for the ANERR to reexamine and clarify the role of the RAMB and to consider expanding its membership. The ANERR responded to the last evaluation findings by expanding the RAMB membership from three local and three state agency representatives to its current size and composition. The 1998-2003 management plan revision also eliminated the ANERR Research and Education Advisory Committees.

In light of the range of opinions on the importance of the ANERR RAMB and the recent elimination of the Research and Education Advisory Committees, it is suggested that the ANERR and the RAMB decide among themselves and with other key stakeholders whether and how the RAMB can be a valuable asset to the Reserve. While a board is not required for Reserve designation or program implementation, the vast majority of Reserves in the national system have management boards and advisory committees with beneficial results. They provide a variety of functions, including advocacy, program review, consensus-building, and program visibility. It is recommended that the ANERR consider the role of similar boards at other reserves.

The RAMB review process should be documented in progress reports to OCRM and the results incorporated into the 2004-2009 management plan revision.

**Necessary Action 1:** The Reserve must address the issue of the RAMB, examining its existing and potential role, composition, and operation. This effort should be coordinated with current RAMB members and other key stakeholders. The results of this review should be incorporated into the 2004-2009 management plan revision.

### **C. Permit Review**

The last evaluation findings of the ANERR included a Program Suggestion that DEP routinely forward all permit applications to the ANERR for review on activities that may directly impact the ANERR. The 1997 Evaluation Findings stated:

“Reserve management is concerned about the effect of new construction on resources in the Apalachicola Bay and River System. The short-term effects, including increased sediment loading and habitat destruction, are immediate concerns. Long-term impacts, especially a change in hydrology, may result in changes in marsh habitats, the

productivity of salt marsh plants and shellfish beds, and water quality. With over 75% of Franklin County's economic activity directly linked to fishing and shell-fishing, habitat and water quality declines could threaten the County's economic base directly.

Since the ANERR is located within the permitting agency, DEP, it would seem plausible that permit applications for the Apalachicola area could be forwarded to Reserve staff. While not all applications would require comment, the process would allow Reserve staff to be more knowledgeable and helpful to local constituents when inquiries are made on a specific project. Reserve staff may be able to provide constructive comments and alternatives to DEP to pass on to the applicant through the review process. Additionally, the benefits of the Reserve's review and expertise in the field could be beneficial to DEP."

Due to the restructuring of DEP at the time of the 1997 evaluation, the permit review process was streamlined in a manner that does not allow recommendations by the ANERR on proposed projects that may impact the Reserve's lands and waters. Consequently, DEP permitting staff and the Reserve have developed informal communication links so that the Reserve staff can provide input on these permit applications. However, the distance to the nearest regional permitting office and high staff turnover rates have impacted the success of these links. Involvement in the permitting process has increased, but there is no formal structure in place for recommendations to be made by ANERR staff.

The evaluation team learned about Developments of Regional Impacts (DRI's), which are more likely to involve the Reserve. For example, there was a recent issue regarding the development of a golf course which violated an outdated comprehensive plan requiring a 50-foot setback on wetlands. The St. James Island golf course was of concern to stakeholders of the Apalachicola area because of the impact of this development on the wetlands. The ANERR met with representatives of the new golf course development project on permitting, conservation planning, and environmental issues regarding traditional land and water uses and development in the region. The ANERR research coordinator spoke before the County Commission on the importance of wetlands and buffers and on the comprehensive plan.

One of the strongest attributes of the more mature reserves, including the ANERR, is their experience and ability to translate science to management in order to improve coastal decision-making. The ANERR staff possesses significant scientific expertise and local knowledge about the resources of the Apalachicola River and Bay region. The GIS database and resource library can be extremely useful in DEP permitting decisions. In fact, individuals interviewed during the evaluation site visit were highly complimentary of the ANERR staff on their scientific capabilities and input on the new St. George Island bridge and the St. James Island golf course.

During the evaluation, stakeholders of the Apalachicola River and Bay raised many concerns about increased development and the health of the watershed and cited benefits of the work of the Reserve. Because these stakeholder groups coordinate with the Reserve on land

acquisition and development issues on a routine basis, it is that much more important that the Reserve is well-informed about DEP permitting activities.

One recent development that may facilitate Reserve notification and input into the permitting process is the DEP website for permit actions. From the DEP website, [www.dep.state.fl.us/admin/forms/leadform.htm](http://www.dep.state.fl.us/admin/forms/leadform.htm), information can be obtained on a particular permit by searching by permit number, by DEP district through OSPREY (One Stop Permit Registry System), or by county. The system also contains a contacts list depending on the area of interest.

**Program Suggestion 2:** DEP should develop a formal process to (1) notify the ANERR staff about permit activities that may impact the ANERR and (2) to receive ANERR staff input and recommendations.

**D. Site Profile Completion:** Each Reserve is required by the NERRS implementing regulations to develop an environmental monitoring program for the purpose of detection of significant changes in Reserve ecosystems and resources. This process includes three phases: development of baseline studies, preparation of a comprehensive site profile, and development and implementation of a long-term standardized monitoring program (15 C.F.R. 921.60(a)).

The ANERR has been working on its site profile since 1994. To assist with this effort, OCRM provided FY97 funding for site profile completion. Its completion by December 31, 1998 was a Necessary Action in the 1997 Section 312 Evaluation Findings.

Since that time, the ANERR requested and OCRM approved an extension to the grant funding the site profile until 2002. Delays in the project were due in part to losing a staff position which was key to this project. However, the project is nearing completion, and the research coordinator has given this task high priority. OCRM provided additional funding for printing in the 2000-2002 award period. A work schedule for completion has also been put in place, and during the evaluation, ANERR staff agreed to prioritize workloads in order to complete the site profile.

**Necessary Action 2:** The ANERR should assign high priority to the site profile to ensure its completion by the June 30, 2002 deadline.

**E. Volunteer Program:** One of the findings from the 1997 evaluation was the need to develop a stronger volunteer program, including the addition of a volunteer coordinator to the ANERR staff, when feasible. In response, the ANERR solicited and received Florida Coastal Management Program funds for a volunteer coordinator in a temporary capacity. During this short-term project, the volunteer coordinator prepared a working document describing a baseline structure for a volunteer program at the Reserve. The ANERR also purchased a software program called "Volunteer Works" which can match the needs of the Reserve with the abilities of available volunteers.

OCRM commends the support of the State of Florida for the Reserve in this effort to build a foundation for the volunteer program, and recommends additional support in order to continue and expand on the work initiated by this short-term project.

During the 2000 site visit, the Evaluation Team again observed the need for volunteers to ease the staff workload in areas of operations, education, research, monitoring and resource management. The expansion of the Visitors Center and the new interpretive boardwalk are two new opportunities for staff responsibilities to be transferred to a volunteer work force. The growth in the retirement community in the region and the strong Reserve relations with the local schools could provide a steady source of volunteers.

Development of a volunteer program will require a dedicated staff person as a volunteer coordinator. Otherwise, the requirements of building and maintaining an active volunteer force will place additional demands on a staff that is already overextended.

**Program Suggestion 3:** The ANERR should continue to build its volunteer program for Reserve operations, education, research, monitoring and resource management. It is strongly encouraged to add a volunteer coordinator to its full-time staff.

**F. Education Program:** ANERR provides a variety of education and interpretive opportunities to a number of audiences, ranging from elementary school students to adults. Unfortunately, the steady growth and success in its education programs combined with vacant positions is overwhelming the existing education and support staff. The ANERR needs to fill the vacant positions in order to maintain its existing program. Another more long-term solution to the staffing issue is to build up the volunteer program as mentioned in Program Suggestion 3.

The evaluation team also believes that the ANERR needs to establish priorities for the education program. This was a Program Suggestion in the 1997 Evaluation Findings:

“Unfortunately, the steady growth and success in diverse education programs are beginning to overwhelm the current staff. While the staff is competent and energetic, the Reserve needs to prioritize the existing program, especially given the limited staffing and resources.”

This continues to be an issue, especially in light of the NERRS Coastal Training Initiative (CTI). This will require increased staff time for implementation if the ANERR plans to participate.

As part of the preparations for CTI, ANERR education staff participated in a NERRS needs assessment training workshop. It is recommended that the ANERR apply this training as part of an internal program evaluation of its education program. This will serve to match community needs with ANERR institutional strengths and help determine the future direction of the education program.

The Evaluation Team also learned that coordination between the education, research, monitoring and resource management programs occurs on an as-needed basis. The programs generally operate as separate entities. Individually, each plays an outstanding role in the community. It is believed that better program integration could enhance overall Reserve performance.

**Program Suggestion 4:** The ANERR should work to fill vacancies in the education program. It should undertake an internal program evaluation to assist in prioritizing its educational activities. It is also encouraged to strengthen the linkages between the education and the research, monitoring and resource management programs. These priorities and linkages should be articulated in the 2004-2009 management plan revision.

## **VI. Conclusion**

Based upon the recent evaluation of the Apalachicola National Estuarine Research Reserve (ANERR), I find the State of Florida and the Department of Environmental Protection (DEP) are adhering satisfactorily to the programmatic requirements of the NERRS in their operation and management of the ANERR. The previous evaluation of the ANERR resulted in eleven recommendations, four of which were in the form of Necessary Actions. The ANERR has met, or is meeting, these recommendations.

The evaluation team also identified the following areas as being in need of further improvement by the DEP: (1) enforceability of the ANERR management plan, (2) the Reserve Advisory Management Board, (3) permit review, (4) site profile completion, (5) the volunteer program, and (6) the education program.

These evaluation findings contain six recommendations, two of which are in the form of Necessary Actions which are mandatory and should be considered by the DEP prior to the next Section 312 evaluation of the ANERR.

This is a programmatic evaluation of the ANERR that may have implications regarding the State's financial assistance award(s). However, it does not make any judgements on, or replace any financial audit(s) related to, the eligibility or allocation of any costs incurred.

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Date

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Douglas Brown, Acting Deputy Director  
Office of Ocean and Coastal Resource  
Management

**Apalachicola Estuarine Research Reserve  
312 Evaluation**

**PERSONS CONTACTED DURING THE EVALUATION**

NorthWest Florida Water Management District (NFWFMD)

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St. Vincent National Wildlife Refuge

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**Apalachicola Estuarine Research Reserve  
312 Evaluation**

**PERSONS ATTENDING THE PUBLIC MEETING**

A public meeting was held on Wednesday, December 6, 2000 at 7:00 p.m. in the Education Center of the Apalachicola National Estuarine Research Reserve, 261 7<sup>th</sup> Street, Apalachicola, Florida.

Barbara Garrison	St. George Island State Park 1900 E. Gulf Beach Dr. (850)927-2111 <a href="mailto:stgeorge@gtcom.net">stgeorge@gtcom.net</a>
Pat Grise Mary Chiles	Office of Senator Bob Graham 2252 Killearn Center Blvd. Tallahassee, FL 32308 (850)907-1100 <a href="mailto:pat_grise@graham.senate.gov">pat_grise@graham.senate.gov</a>
Susan Ficklen	Administrator Weems Memorial Hospital 135 Avenue G Apalachicola, FL 32320